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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/537,526	10/06/2005	Elmar Kessenich	13486-00001-US	3587
23416 7590 01/05/2007 CONNOLLY BOVE LODGE & HUTZ, LLP P O BOX 2207 WILMINGTON, DE 19899			EXAMINER ZIMMERMAN, JOSHUA D	
			ART UNIT 2854	PAPER NUMBER
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		01/05/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/537,526	Applicant(s) KESSENICH ET AL.	
	Examiner Joshua D. Zimmerman	Art Unit 2854	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 17-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 17-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 June 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>06/3/05</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION***Drawings***

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference characters "5" and "10" have been used to designate two different items. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: reference numbers "5" and "10," located on the far left hand side of the drawing. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing

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sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR

1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action.

The objection to the drawings will not be held in abeyance.

Claim Objections

3. Claim 21 is objected to for being of improper dependent form. It is not clear how the apparatus is used in the process because the apparatus is not used in any of the positively recited process steps. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 17 and 19 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Okamura.

Regarding claim 17, Okamura discloses "an apparatus for the in-line production of flexographic printing plates by means of digital imaging (Figure 1), at least comprising

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- (A) a unit for holding digitally imageable, photopolymerizable, flexographic printing elements (item A),
 - (B) a unit for the digital imaging of the flexographic printing element, which comprises at least two functional units of the same type, selected from the group consisting of thermal printing heads, of IR lasers, inkjet printing heads or thermal printing heads (figure 6, Items H1 and H2),
 - (C) an exposure unit (Item H),
 - (D) a washout unit (item D),
 - (E) a drying unit (item D, column 2, lines 25-34),
 - (F) optionally an aftertreatment unit (item F),
 - (G) an output unit for the flexographic printing plates obtained (item Q),
 - and
 - (H) transport units for the flexographic printing elements or plates, which connect the units (A) to (G) to one another (arrows in Figure 1),
- the units (A) to (H) being designed so that the flexographic printing elements or plates are processed in the flat state (column 5, line 15)."

The phrase "having a thickness of from 0.4 to 1.0 mm" is functional language, and does not distinguish over Okamura.

Regarding claim 19, while not specifically stating so, the exposure unit H of Okamura could function as "a unit for preexposure of the photosensitive flexographic printing elements."

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Okamura in view of Knoll et al. (US 2003/0178130).

Regarding claim 18, Okamura teaches all that is claimed, but fails to specifically teach that the “transport units comprise magnetic retaining apparatuses.” However, Knoll et al. teach the use of a magnetic steel substrate in printing plates in order to have a simple and quick mounting procedure onto magnetic retaining devices (paragraph 4). Therefore, at the time of the invention, it would have been obvious to one having ordinary skill in the art to include magnetic retaining apparatuses in the invention of Okamura in order to have a simple and quick mounting method.

6. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Okamura.

Regarding claim 20, Okamura teaches all that is claimed, but fails to specifically teach that the apparatus is used “for the production of flexographic printing plates.” However, Okamura clearly teaches that the apparatus can be used for printing newspapers (column 1, line 15) and that any plate that uses

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direct drawing can be produced (column 1, lines 43-46 and column 6, lines 20-22). Therefore, it would have been obvious to one having ordinary skill in the art to use the apparatus of Okamura in order to produce flexographic printing plates, especially those used in printing newspapers.

7. Claims 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okamura in view of Leenders et al. (EP 1072953).

Regarding claim 21, Okamura teaches "a process for the production of printing plates for newspaper printing (column 1, line 15),

wherein an apparatus as claimed in claim 17 is used and the process comprises the following steps:

(a) placing of the photosensitive flexographic elements in the holding unit

(A) (column 4, lines 3-5),

(b) imagewise recording on the digitally imageable layer by means of the imaging unit (B) (column 4, lines 4-6),

(d) removal of unexposed parts of the flexographic printing element and the residues of the digitally imageable layer by means of a suitable solvent or of a suitable solvent combination in the washout unit (D) (column 2, lines 35-38),

(e) drying of the washed out flexographic printing plate (column 2, line 32)

(g) output of the finished flexographic printing plate (item G of Figure 1, column 2, line 45),

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the flexographic printing element or the flexographic printing plate being transported by the transport means (H) from one unit to the respective next unit and not being bent during the entire processing procedure (column 2, line 45 and column 5, line 15, and figure 1)."

The phrase "for producing a mask on the flexographic printing element" is intended use, and does not distinguish over Okamura.

Okamura fails to teach " (c) exposure of the flexographic printing element to actinic light by means of the exposure unit (C) through the mask produced" or that the drying is conducted "at from 105 to 160°C."

Leenders et al. teach a method of producing a flexographic printing element wherein a mask is produced by ink-jet means (pg 9, lines 5-6), said element is exposed through said mask (page 9, line 7), and then the unexposed regions are removed (page 9, lines 8-9). The method of Leenders et al. is used because it is convenient and results in a material that has a high receptivity (paragraph 7). Therefore, at the time of the invention, it would have been obvious to one having ordinary skill in the art to modify the invention of Okamura according to Leenders et al. in order to create a highly receptive printing plate in a convenient manner.

Regarding claim 22, Leenders et al. further discloses "wherein the flexographic printing element is furthermore preexposed to actinic light in a step preceding (b), (paragraph 40) with the proviso that a flexographic printing element whose digitally imageable layer has a sufficient transparency to actinic light is used (paragraph 40)."

8. Claim 23 rejected under 35 U.S.C. 103(a) as being unpatentable over Okamura and Leenders et al., in view of Knoll et al. (US 2003/0178130).

Regarding claim 23, Okamura and Leenders et al. teach all that is claimed, but fail to specifically teach that the "substrate comprises magnetizable spring steel." However, Knoll et al. teach the use of a magnetic steel substrate in printing plates in order to have a simple and quick mounting procedure (paragraph 4). Therefore, at the time of the invention, it would have been obvious to one having ordinary skill in the art to use a magnetic steel substrate in the modified invention of Okamura in order to have a simple and quick mounting method.

9. Claims 24-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okamura and Leenders et al., as applied to claim 21 above further in view of Arimatsu et al. (US 5317080).

Regarding claim 24, Okamura and Leenders et al. teach all that is claimed, including the use of a styrene/butadiene block copolymer, but fail to describe the content of the copolymer. Arimatsu et al. teach a flexographic printing plate composition (column 5, lines 67-68) "wherein the binder in the photopolymerizable layer is at least one styrene/butadiene block copolymer having a styrene content of from 20 to 50% by weight (column 6, lines 1-19)" which results in a tough and flexible plate (column 2, lines 20-25). Therefore, at the time of the invention, it would have been obvious to one having ordinary skill

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in the art to use the flexographic printing plate composition of Arimatsu et al. in the modified invention of Okamura in order to have a printing plate which is tough and flexible.

Regarding claim 25, Arimatsu et al. further teach "wherein the block copolymer has an average molecular weight M_w of from 80 000 to 150 000 g/mol (column 4, lines 8-11)."

Regarding claim 26, Arimatsu et al. further teach "wherein the styrene/butadiene block copolymer has a Shore A hardness of from 55 to 75 (column 6, lines 5-6)."

Regarding claim 27, Arimatsu et al. further teach "wherein the photopolymerizable layer furthermore comprises a plasticizer (column 5, line 7)," but are silent in regards to the percentage of the plasticizer in the layer. However, one having ordinary skill in the art would recognize that a plasticizer affects the plasticity of the final plate, and would have been motivated, through routine experimentation, to include it in an amount "from 5 to 50% by weight" in order to obtain an appropriate amount of plasticity in the plate.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joshua D. Zimmerman whose telephone number is 571-272-2749. The examiner can normally be reached on M-R 8:30A - 6:00P, Alternate Fridays 8:30A-5:00P.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen can be reached on 571-272-2258. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Joshua D Zimmerman
Examiner
Art Unit 2854

jdz


JUDY NGUYEN
SUPERVISORY PATENT EXAMINER